



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

**AFS-600**

*Regulatory Support Division*

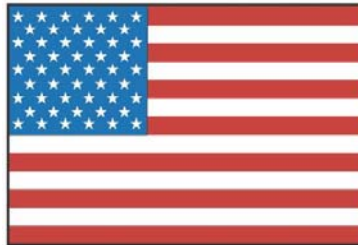
## **ADVISORY CIRCULAR**

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# **AVIATION MAINTENANCE ALERTS**

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**ALERT  
NUMBER  
341**



**DECEMBER  
2006**

# **CONTENTS**

## **AIRPLANES**

BEECH .....	1
BELLANCA .....	4
CESSNA .....	4
DASSAULT.....	7
DIAMOND .....	7
GULFSTREAM.....	8
IAI.....	8
LEAR .....	9
PIPER.....	9

## **ACCESSORIES**

KELLY FUEL PUMP.....	11
SIGMA-TEK AIR PUMP.....	12
SUNSTRAND FUEL PUMP.....	12
TCM MAGNETO .....	12

## **POWERPLANTS**

ECI.....	14
ROLLS ROYCE .....	14

## **AIR NOTES**

ELECTRONIC VERSION OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT .....	18
PAPER COPY OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT.....	18
INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE.....	18
IF YOU WANT TO CONTACT US .....	19
AVIATION SERVICE DIFFICULTY REPORTS .....	20

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U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, DC 20590

AVIATION MAINTENANCE ALERTS

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The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience, cooperating in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via a Mechanical Reliability Report (MRR), a Malfunction or Defect Report (M or D), or a Service Difficulty Report (SDR). Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Aviation Data Systems Branch (AFS-620); P.O. Box 25082; Oklahoma City, OK 73125-5029.

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*(Editor's notes are provided for editorial clarification and enhancement within an article. They will always be recognized as italicized words bordered by parentheses.)*

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AIRPLANES

BEECH

**Beech: B60; Cracked Keel Beams; ATA 5314**

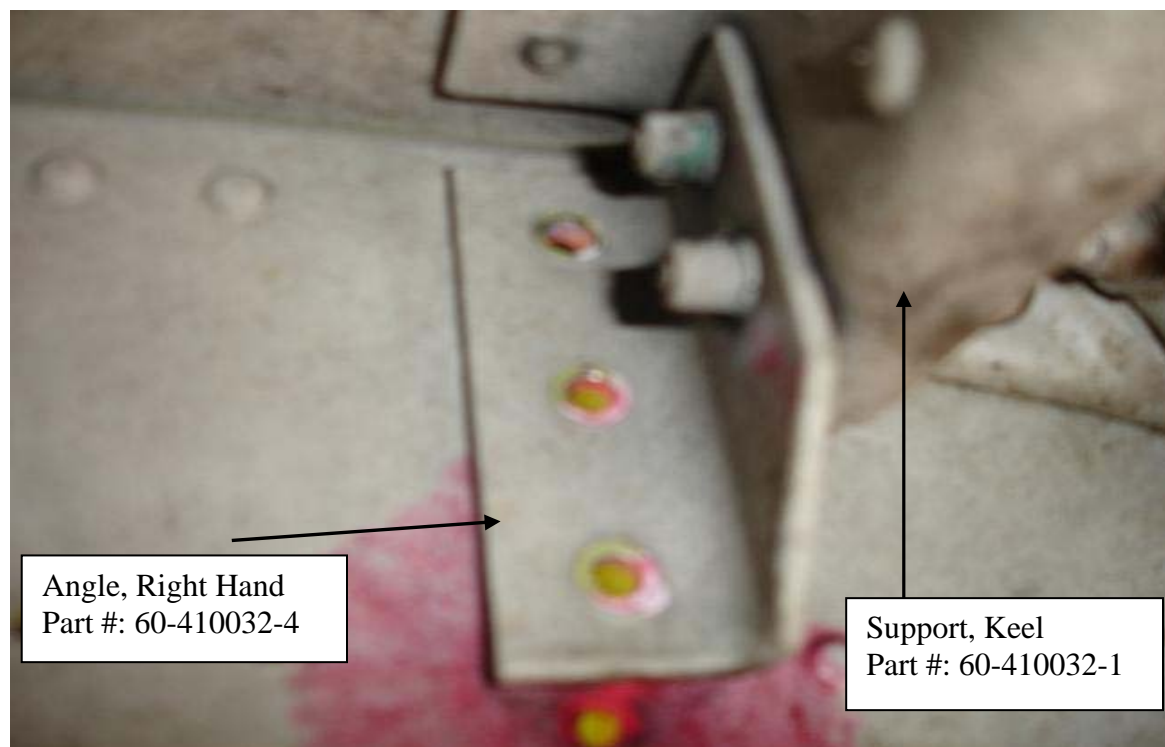
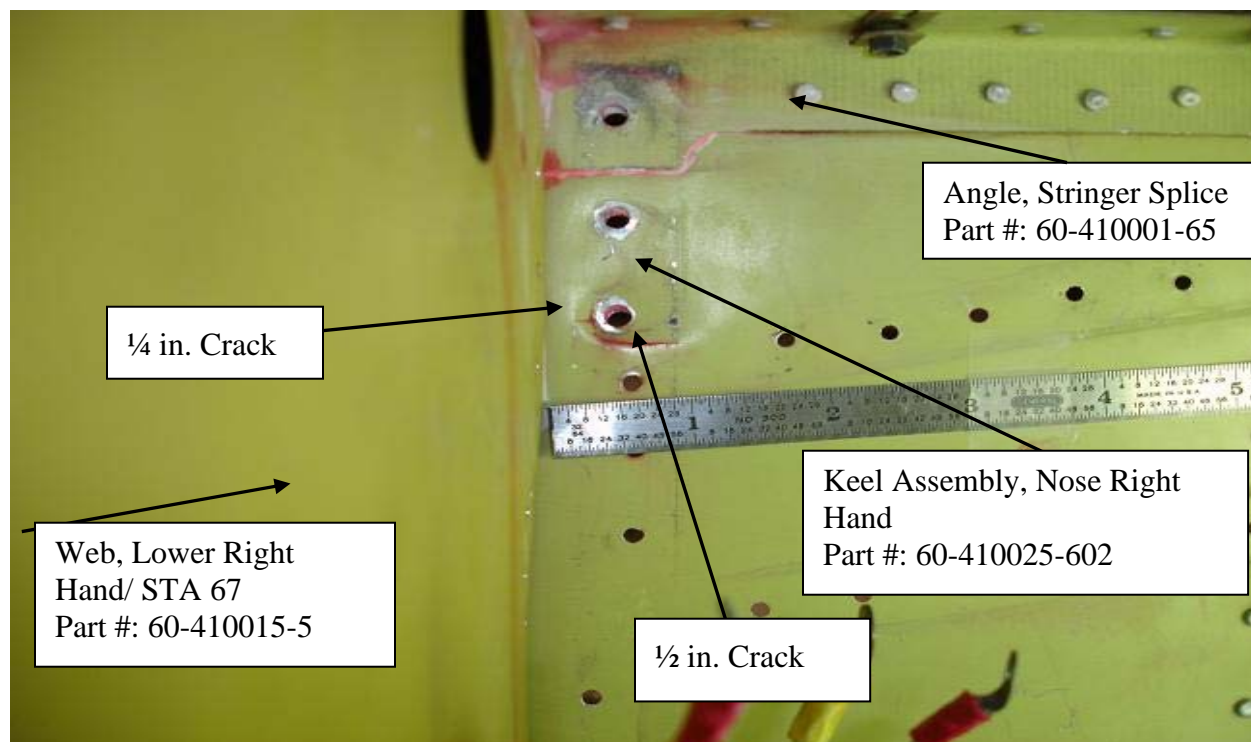
*(The following report is comprised of a mechanic's two-part submission: the first and second paragraphs reflect the defect report proper, the remaining discussion portions of an attached letter expanding the topic.)*

An annual inspection revealed a cracked stiffener (P/N 60-410025-51) under the R/H nose baggage floor (station 67: between the main and standby inverters). Cracks were found around this part's Hi-Lok fastener holes.

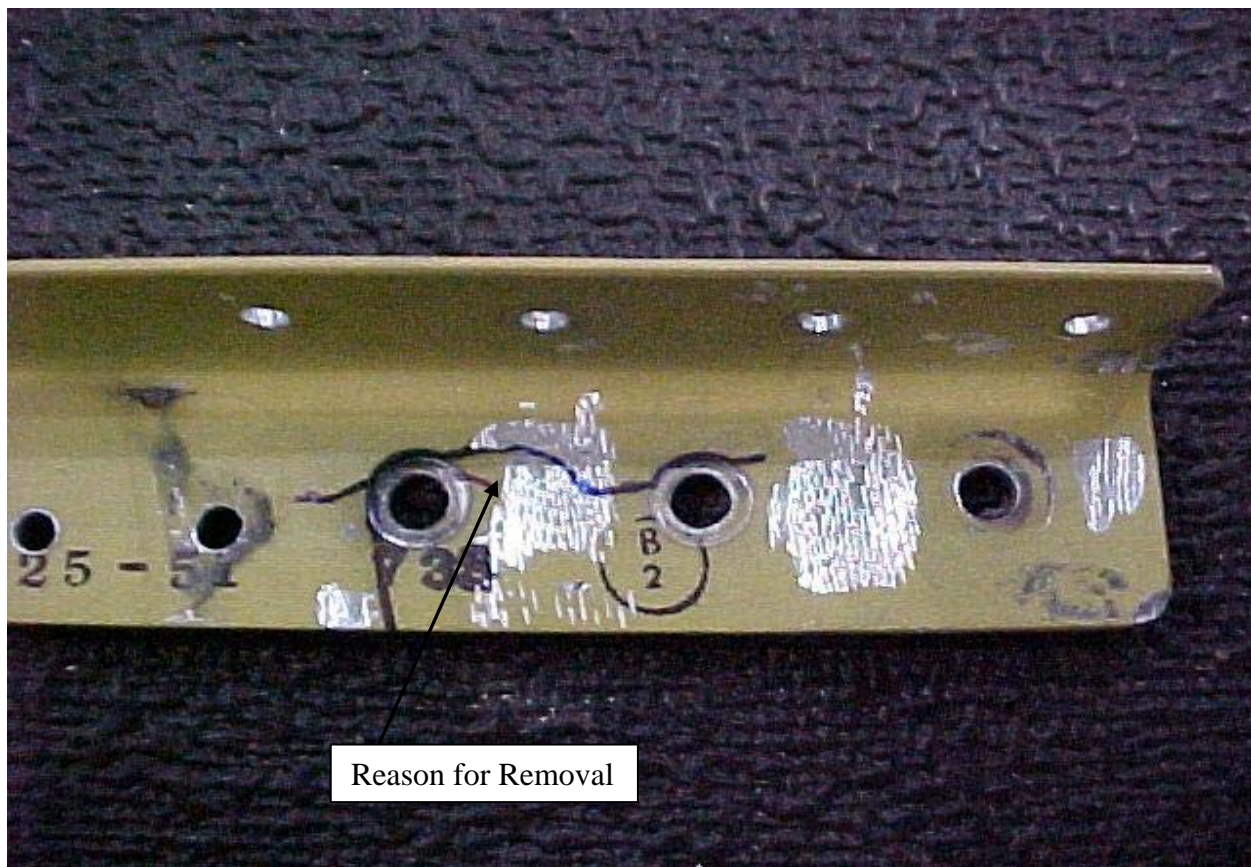
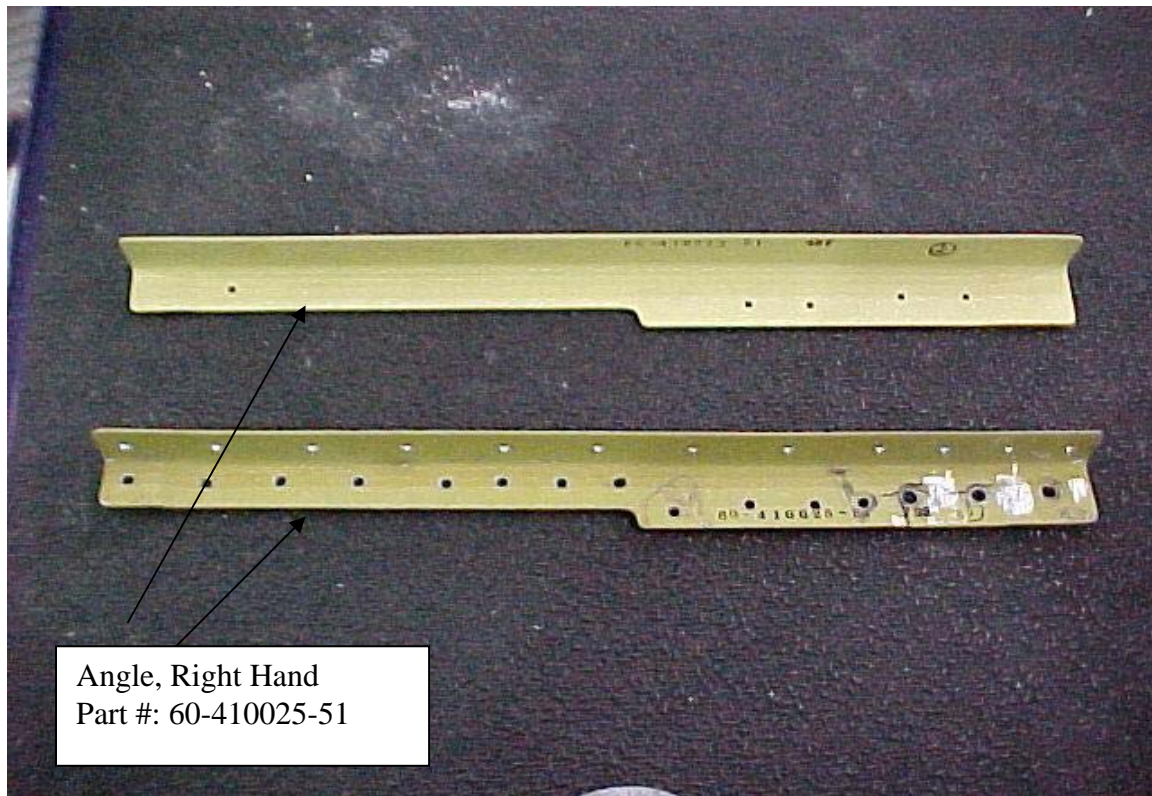
The submitter states, "Removal of *(this)* stiffener allowed inspection of the keel (P/N 60-410025-601) revealing cracks in *(its)* web previously obscured by the installed stiffener. The mirror image stiffener (P/N 60-410025-49) on the left side of the aircraft revealed similar cracks, *(but)* with no damage to the keel."

"The *(attached)* pictures are described as follows: picture (1) is a view of the right side keel web (cracked) as taken from inside the nose baggage compartment. The baggage floor *(has been)* removed, and the top of the picture is the support for the nose baggage floor. Picture (2) I realize is out of focus, but it is *(submitted)* to provide some reference. *(This second photo...)* is taken from inside the nose wheel well. *(The view...)* is looking toward the right side of the aircraft, *(showing...)* dye penetrant seeping in from behind a support that obscured the crack in the keel. Picture (3) *(...views both the new and old parts)*. Picture (4) shows in great detail the crack that was the cause for *(the part's)* removal.

"The reason I felt compelled to submit this report is this *(aircraft)* is the second B60 *(...on which I have performed an annual inspection)*, and both had the same stiffeners cracked. I do not currently have any information regarding total times on the other Duke having this problem...." "All of the cracks were visible with the naked eye—the dye penetrant was used only to highlight the defects for the camera." *(Photos have been slightly "tweaked" to save space—Ed.)*







*(Thanks, Thomas, for a great catch, pictures, discussion, and your considerable effort to share this with the Beech community. I suspect more than a few baggage floors will be popped open shortly after this publication—Ed.)*

Part(s) Total Time: 3,004.7 hours.

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## BELLANCA

### **Bellanca: 7GCBC; Cracked Wing Spar; ATA 5711**

This A&P mechanic states, “During wing recovering, *(I)* found the left wing front spar (*P/N 271L*) with a crack originating at the butt end. It followed the wood grain outboard through the upper attach bracket holes, extending approximately one inch past the inboard-most (*upper hole*) of the fuel tank support bracket. *(There was...)* no evidence of cracks in the butt end spar doublers. The total length of this crack is approximately 8.375 inches.” *(No speculation as to cause or prevention was offered with this submission.)*

Part Total Time: (unknown).

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## CESSNA

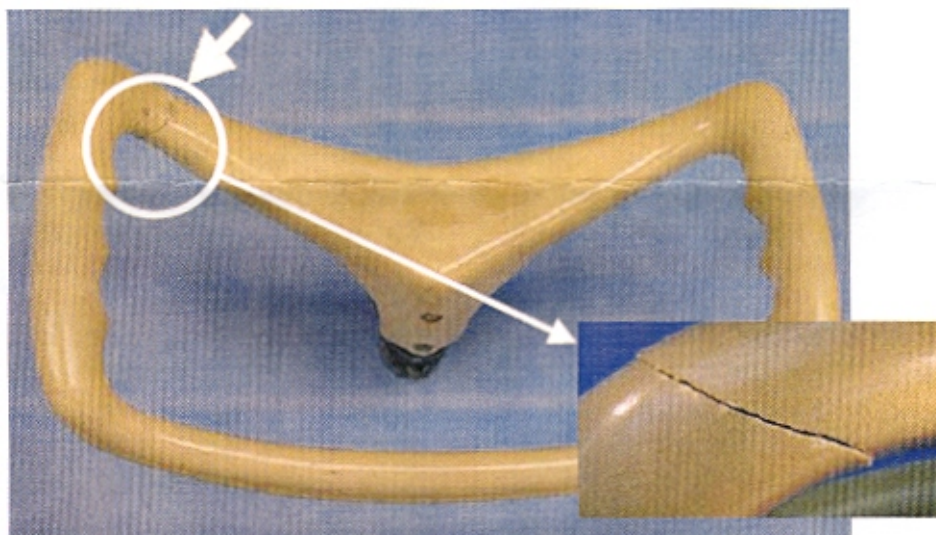
### **Cessna: 150—337 (*see list*); Cracked Control Wheel; ATA 2701**

*(The following safety article is published as received from the Wichita, Aircraft Certification Office. Specified models include 150, 172, P172, 175, 180, 182, 205, 206, 210, 336, and 337.) Contact information is found at discussion’s end.)*

“The National Transportation Safety Board (NTSB) recently sent a safety recommendation to the FAA regarding cracks and failures of plastic control wheels on Cessna single-engine airplanes. The recommendation was due to a non-injury airplane accident in Colorado on a 1962 Cessna 205 in 2004 that resulted in damage to the firewall, propeller, and wing strut. The pilot reported that the control wheel fractured during the landing flare. The NTSB recommends that the FAA ‘Require recurrent inspection of part number 0513166 series control wheels in applicable Cessna airplanes for cracks, with specific emphasis on the inside upper corners where fatigue cracking has been found and replacement of the control wheels if any cracks are detected.’

“FAA Special Airworthiness Information Bulletin (SAIB) CE-01-41-R1 states in the recommendation: ‘The FAA recommends that owners, operators and maintenance technicians place special emphasis on the periodic 100 hour and annual inspections on plastic control wheels installed in these airplane models until they are replaced with metallic control wheels. See Cessna SL No. 64-8, dated February 14, 1964, for airplane Model and Serial Numbers. If the indication of cracking is unclear, we recommend that you proof test the wheel in accordance with Cessna SI No. 64-8. However, the pull force may be reduced to 30 pounds rather than the 50 pounds as stated in the service letter. If replacement is required because of the failure of the control wheel due to this pull force, then it is to be replaced with a metallic control wheel, as specified in the service letter.’

“In the past 32 years, 16 occurrences of cracks or failures of P/N 0513166 control wheels were found in the Service Difficulty Report (SDR) database. Also, 5 occurrences were found for P/N 051367, 13 occurrences were found for P/N 0513168, and 10 occurrences were found for ‘control wheel’ without a part number. Thus, a total of 44 occurrences were found.”



*(Reference August 2006 Alerts describing an occurrence of this same defect...during the landing flare. For further information contact Aerospace Engineer, Mr. Gary Park, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, KS, 67209; 316-946-4123.)*

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#### **Cessna: 172R; Failed Oil Pressure Sensor; ATA 7931**

“The aircraft was making an approach,” states a mechanic, “and had oil splash on the windshield. The pilot made a full stop and taxied back to the ramp. Oil pressure and temperature stayed in the ‘green.’ Upon investigation it was found the cause of the oil leak was the sensor-oil pressure (Hobbs switch; P/N 83278).... The sensor had failed internally and the oil was coming from around the prongs inside the connector area. Probable cause—bad design.”

*(A search of the FAA Service Difficulty Reporting System data base revealed five separate reports for this specific part number.)*

Part Total Time: 2,618.0 hours.

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#### **Cessna: P206—P210 (see list); Elevator Trim Tab Corrosion; ATA 5523**

*(The following safety article is published as received from the Wichita, Aircraft Certification Office. Specified models include P206, U206, 207, 210, T210, and P210.) Contact information is found at discussion’s end.)*

“FAA Special Airworthiness Information Bulletin (SAIB) CE-05-27, dated January 20, 2005, informed owners and operators of Cessna 206/207/210 airplanes of a potential problem with foam-filled elevator trim tabs. The foam may soak up moisture and can cause internal corrosion. Parts of the elevator have been lost, and reports of vibration in the tail have been reported for airplanes with and without internal foam. Due to corrosion, the area of the trim tab near the trim tab actuator can become very thin, and cause the actuator to become disconnected from the tab. If this occurs, the tab may vibrate or possibly flutter. Such an occurrence may also develop from the accumulation of moisture in the foam causing the elevator to become under-balanced. This has also been known to occur with trim tabs that were not foam-filled but with water or ice collecting inside.



“As an example of the years of concern by the FAA on this issue, General Maintenance Alert Bulletin No. 62, ‘Maintenance of Control Surfaces and Systems for Flutter Prevention,’ dated August 24, 1953, informs maintenance technicians about proper maintenance procedures to prevent flutter by retaining ‘water-tightness.’ High unbalance due to trapped water or ice within the surface can cause flutter. Proper control surface balance must be maintained.

“In the SAIB we recommend replacing foam-filled elevator trim tabs (P/N 1234628-1) with ‘un-foamed’ tabs (P/N 1234665-1), or (P/N 1234665-9) with doublers (P/N 1234666-1/-2) per Cessna Service Bulletin SEB92-1, dated January 17, 1992, or an FAA approved equivalent replacement. Also, note that elevator trim tab (P/N 1234665-10 – un-foamed) should comply with mandatory Cessna Service Bulletin SEB00-6, dated July 31, 2000, requiring the installation of additional rivets. We further recommend periodic 100 hour and annual inspection of the trim tab and surrounding area.

“Information is available to address problems with foam filled tabs in the Cessna service bulletin and their maintenance and service manuals, FAA Advisory Circulars (AC) such as AC 43.13-1B (Chg. 1), AC 91-60, AC 91-56A, AC 20-103, AC 135-10A, AC 135-7, AC 135-3B, AC 43-9C, AC 121-1A, AC 120-84, AC 43-4A, other AC 43.16A; and the SAIB. The inspections of the foam filled trim tabs require scrutiny to determine if delamination of the upper and lower surfaces of the tab has occurred or if the paint bubbles. Whether or not the trim tab is foam filled, trim tabs must be periodically inspected for corrosion, security, and damage to continue to be airworthy. Cessna Service Bulletin SEB85-7, dated April 5, 1985, includes information about inspecting elevators and trim tabs. Cessna manual D5121-1-13, ‘200 series continuous airworthiness program’ is available. 14 CFR Part 91 requires that aircraft be airworthy to be operated, that owners and operators are responsible to maintain aircraft in an airworthy condition, and that the aircraft undergo annual inspections.”

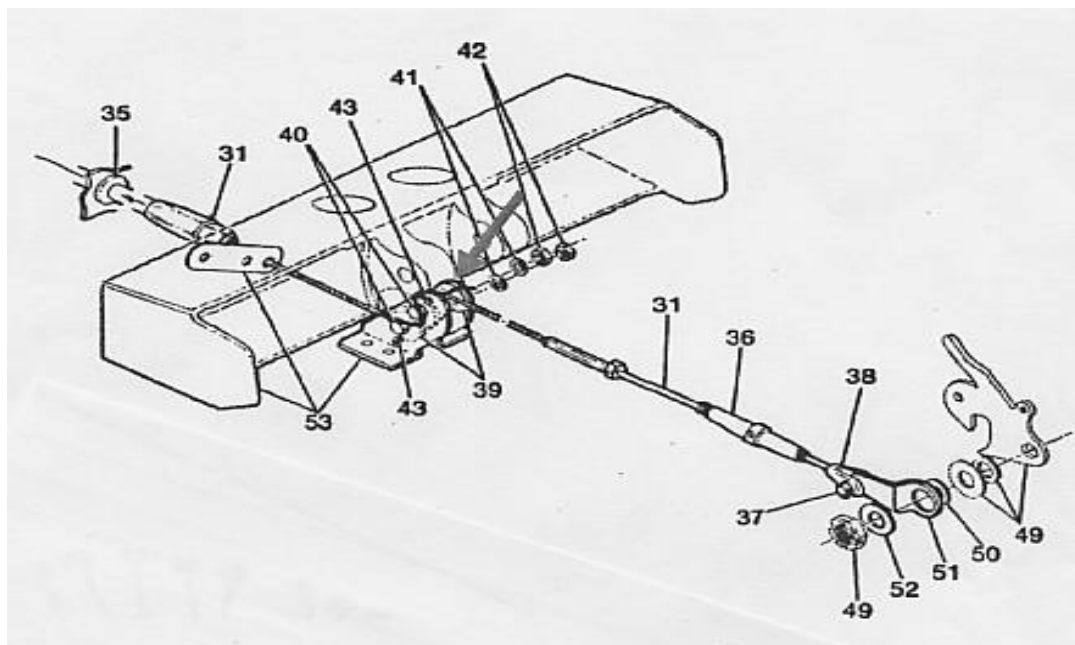
*(For further information contact Aerospace Engineer, Mr. Gary Park, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, KS 67209; 316-946-4123.)*

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### **Cessna: T210M; Failed Cabin Step Cable; ATA 5260**

“While preparing to land,” states the submitter, “the pilot was unable to position the nose landing gear in the down-and-locked position. Following a landing in which the nose gear collapsed, it was found that the retractable cabin step cable failed at the forward pulley (P/N 51710-1). The cable intertwined with the nose gear linkage and would not allow the nose gear to lock in the down position. The main landing gear operation was not affected. The cable (P/N 1211504-1) was installed on the airplane 8 years prior to the accident.” *(Aircraft total time was given as 7,500 hours.)*





Part Total Time: 1,000.0 hours.

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## DASSAULT

### Dassault: 20; Failed Uplock Switch; ATA 3260

An air taxi operator submitted this next discrepancy. "On approach the landing gear had to be lowered using procedure C (emergency procedures). Maintenance inspected the aircraft and found the #1 landing gear uplock switch (P/N A10024239) inoperative...replaced uplock switch with a serviceable part."

*(No other information was offered about this part. A search of the FAA Service Difficulty Reporting System data base revealed 12 similar reports.)*

Part Total Time: (unknown).

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## DIAMOND

### Diamond: DA40F; Failed Alternator Out-Put Wiring; ATA 2460

"(There was...) a total electrical system failure in flight," says this mechanic. "Inspection revealed the main power wire's ring terminal to the alternator had failed, causing arcing which shorted the alternator out and caused the main and essential buss circuit breakers to pop. Possible cause is too short of a wire harness which does not allow for engine vibration. (This problem was...) remedied with a new alternator and alternator cable assembly (DA4-2406-41-00) provided by Diamond Aircraft Industries. The new cable assembly is a couple of inches longer to prevent this from occurring."

Part Total Time: 69.5 hours.

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## DIAMOND

### **Diamond: DA40FP; Loose Fuel Caps; ATA 2810**

*(The same mechanic from the previous entry adds another interesting discrepancy for the Diamond aircraft in his charge—several of which have been bathed in an all night rain storm....)*

“Upon preflight of the aircraft...two to three sump glasses were filled with water from each wing fuel tank sump drain. Further inspection of nine other aircraft of the same make and model found two other aircraft with similar amounts of water in the sump drains. All three of these aircraft were tied down outside during the (*inclement*) weather. Inspection of the Fuel Filler Flange/Cap Assembly (*P/N C36L*) on all twelve aircraft revealed the same loose fuel cap condition. All aircraft fuel caps were tightened as a precaution. The O-ring seals did not appear to be damaged.”

*(Let's see: if one's engine departs his or her plane, we might well consider that a catastrophic event having rather bleak, immediate prospects. So too can disaster unfold from a big gulp of water, shortly after rotation. Is it not ironic how often the price for each can be the same? Nice catch, Steve.)*

Part Total Time: 40.8 hours.

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## GULFSTREAM

### **Gulfstream: GIV; Defective Thrust-Reverser Actuator; ATA 7830**

A mechanic states, “Approximately 20 minutes into the flight the crew notified maintenance they had a ‘thrust-reverser unlock light.’ The crew (*reduced*) power and the light extinguished—then they selected ‘emergency stow’ and returned to (*base*) without incident. As the aircraft rolled up with engines running maintenance noted the left T/R was stowed and failed. When the engine was shutdown (*it*) drooped approximately 1/8 inch, but was still not on the secondary lock (S-hooks).” “A new replacement actuator (*P/N 1159SCP402-11RW*) has been installed with no faults noted and the aircraft has been returned to service.”

*(A search of the FAA Service Difficulty Reporting System data base revealed two recent reports for this new actuator.)*

Part Total Time: 143.0 hours.

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## IAI

### **IAI: 1124; Cracked Hydraulic Line; ATA 2910**

A mechanic for an air operator describes a hydraulic fault's sudden appearance in this aircraft. “In flight the aircraft experienced a hydraulic pressure warning light on the R/H engine hydraulic pump, then the L/H engine driven hydraulic pump. The landing gear was extended with the emergency blow-down system. The aircraft landed with no other issues (*except for its being...*) towed from the runway to the hanger. The failure (*was found to be a cracked...*) hydraulic landing gear retract line in the left wing root....”

*(The part name and number given is “hydraulic lift-dumper,” aluminum line: P/N 723552-483. It would be interesting to know where on the line the crack occurred: at a bend, or B-nut, etc. Could it have been corrosion induced, or mechanically damaged? If corrosion was suspect, one might be inclined to anticipate additional failures.)*

Part Total Time: 8,679.0 hours.

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## LEAR

### **Lear: 31; Defective Landing Gear Selector Valve; ATA 3234**

An anonymous submitter writes, “The nose gear ‘unsafe’ light remained illuminated upon gear retraction. The crew recycled the gear and *(then)* all lights extinguished. Maintenance inspected the landing gear system and found the nose landing gear to be lagging during operation. *(Trouble shooting led...)* to the gear selector valve *(and its subsequent replacement: P/N 48C48641).*”

Part Total Time: 4,442.0 hours.

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### **Lear: 55C; Broken Gear Door Piano-Hinge; ATA 5280**

An air tax operator states, “The aircraft departed from San Antonio via Houston. During climb at about 13,000 feet the crew notices a strange airflow noise as if a gear door was open. All instrument indications were good (3 green). Upon landing in Houston visual inspection noted the right gear, outboard door was missing. *(Further)* inspection found that the piano hinge which attached the door to the wing had structural failure and broke clean across the length of the hinge. At this point the lower attachment bracket cracked. The hardware attaching the door to the rod end was still attached to the gear. All of this *(original)* hardware was properly installed and was not the reason for the failure. It is undetermined at this point the reason for the hinge structural failure *(Hinge P/N 6681047-18).*”

Part Total Time: (unknown).

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## PIPER

### **Piper: PA25, 235, 260; Cracked Horiz. Stab. Support Tubes; ATA 5510**

*(The following Airworthiness Directive originates from our southern neighbors in Argentina and is provided to us as an information courtesy. Readers are reminded no foreign directives are compulsory in the United States. On the other hand, they don't have to be if YOU fly this airplane!)*



DIRECCION NACIONAL DE  
AERONAVEGABILIDAD  
REPUBLICA ARGENTINA

DIRECCION CERTIFICACION  
AERONAUTICA  
AV. FUERZA AEREA KM 5 ½  
(X5010JMN) CORDOBA

## AIRWORTHINESS DIRECTIVE

A.D. N° RA 2006-06-01 Rev.1 LAVIA S.A.  
AMENDMENT N° 39/03-041  
DATE: November 17, 2006

THE FOLLOWING AIRWORTHINESS DIRECTIVE (AD) DEVELOPED AND ISSUED BY THE DIRECCION DE CERTIFICACION AERONAUTICA OF THE DIRECCION NACIONAL DE AERONAVEGABILIDAD IN ACCORDANCE WITH THE PROVISIONS OF ACT N° 17285, AERONAUTICAL CODE OF THE ARGENTINE REPUBLIC, PUBLISHED IN THE OFFICIAL BULLETIN DATED MAY 23, 1967, WITH SUBSEQUENTLY INCORPORATED AMENDMENTS AND DNAR PART 39 OF THE AIRWORTHINESS REGULATIONS, APPLIES TO ALL AIRCRAFT OF THE SAME MAKE AND MODEL REGISTERED IN THE NATIONAL REGISTRY OFFICE OR TO TRANSPORT CATEGORY AIRCRAFT OPERATED BY NATIONAL AIR CARRIERS.  
NO PERSON MAY OPERATE AN AIRCRAFT TO WHICH AN AIRWORTHINESS DIRECTIVE APPLIES EXCEPT IN ACCORDANCE WITH THE REQUIREMENTS OF THAT AIRWORTHINESS DIRECTIVE

### 1. APPLICABILITY:

This AD applies to all PIPER "Pawnee, model PA 25; PA25-235 and PA 25-260 series airplanes; CHINCUL "Pawnee", model PA25; PA 25-235 and PA 25-260, and LAVIA "Puelche" PA-25-235 and PA 25-260 that have accumulated 1500 Flight Hours or more, except S/N 260-06008 and up.

### 2. CORRECTIVE ACTION AND TIME OF COMPLIANCE

Compliance with Bulletin Service N° 25/53/03 issued by Latinoamérica de Aviación S.A. is required in order to detect cracks, evidence of corrosion or any other anomalies on support tubes of the horizontal stabilizer.

If any discrepancy is found between Service Bulletin N° 25/53/03 and the present AD, the requirements of this AD shall take precedence.

(1) Initial Action: At 50 Flight Hours: perform the operations as specified in paragraph "ACTIONS", subparagraph "INITIAL" of Service Bulletin N° 25/53/03.

(2) Repetitive Actions: Every 100 Flight Hours or during the next Annual Inspection, whichever occurs first; perform operations as specified in Paragraph 2, Item (1), Initial Action of this AD.

### REMARKS:

- (a) Repetitive Actions must be repeated until Definitive Action is applied.
  - (b) If any evidence of cracks, signs of corrosion or any other discrepancy is detected, the Repair Station (TAR) performing the inspection shall disassemble both horizontal stabilizers and conduct a detailed inspection on the surface of both supports.
  - (c) If any of the above-described discrepancies is detected, paragraph 2, item 3, "Definitive Action", shall be applied.
- (3) Definitive Action: Perform operations as specified in paragraph "ACTIONS", subparagraph "DEFINITIVE" in Service Bulletin N° 25/53/03.

AD RA 2006-06-01 Rev.1 - 1 de 2



**3. ALTERNATIVE METHOD OF COMPLIANCE**

Any interested person may propose a different compliance method or a different compliance time that provides an equivalent safety level.

**4. EFFECTIVITY:**

This AD becomes effective on September 11, 2006.

**5. REFERENCE DOCUMENTATION:**

Service Bulletin N° 25/53/03, Revision 0 issued by Latinoamericana de Aviación S.A. (LAVIASA) is incorporated to this AD for reference.

This Service Bulletin may be obtained by sending an e-mail to: [laviasa@speedy.com.ar](mailto:laviasa@speedy.com.ar) or by mail addressed to: "Hangar N° 1 Aeropuerto El Plumerillo Sur – Las Heras - CP 5541 – Mendoza – República Argentina.

Address any inquiries concerning this AD to:

Dirección de Certificación Aeronáutica – División Dificultades en Servicio

Avenida Fuerza Aérea, Km 5 ½

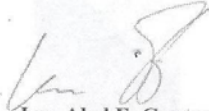
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<http://www.dna.org.ar/>

  
Ing. Abel E. Gontero  
Director de Certificación Aeronáutica

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## ACCESSORIES

### KELLY FUEL PUMP

**Kelly Fuel Pump: 200F-5004; Leaking Fuel Defect; ATA 7314**

A technician for an aviation company describes this fuel pump defect. "With the engine off and the fuel boost pump on, a steady stream of fuel came out of the engine driven fuel pump's shaft seal drain hose. The fuel continued to flow out the drain hose after the engine was started. This is not the first instance of leaks with this model pump—a relatively new design. The pump was returned to the manufacturer for warranty."

*(A search of the FAA Service Difficulty Reporting System data base revealed seven entries for this part number.)*

Part Total Time: 43.5 hours.

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## SIGMA-TEK AIR PUMP

### **Sigma-Tek Air Pump: 1U478; Faulty or Broken Drives, (5 ea); ATA 3710**

*(An FAA Principal Maintenance Inspector submitted five hard copy discrepancies reports of this engine driven, dry air pump. Essentially similar as discrepancies—same ATA code—the following is a composite of the group. Served aircraft are all Grob G120A's sporting Lycoming AEIO-540 engines.)*

A repair station submitter writes, "During engine start suction pressure was reading zero. During further trouble shooting the technician found the engine driven dry air pump had a broken shaft *(two aircraft)*. Probable cause could be from vibration or hard start. *(Part time listed as 194.0 hours.)*"

Another report states, "The pilot reported suction was below limits and the aircraft returned to base. Upon troubleshooting the mechanic removed the air pump and noticed the shaft was very easy to rotate—it had no resistance to it *(three aircraft)*."

Part Total Time(s): 84.2 hours *(averaged)*.

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## SUNSTRAND FUEL PUMP

### **Sunstrand Fuel Pump: 025323-150; Shaft Corrosion (16 ea); ATA 7314**

*(Sixteen Cessna 208B's all have suffered the same discrepancy with nearly identical descriptions suffering from the same discrepancy over approximately the last 13 months. The aircraft function under one operator—one description testifies for the remaining fifteen.)*

The operator's submission states, "Precautionary inspection was performed on the Fuel Pump drive spline in accordance with Pratt and Whitney PT6 maintenance manual: Fuel Pump Coupling In-Situ inspection; 73-10-02 page 210, paragraph 8D. Maintenance found the fuel pump drive spline severely corroded. The fuel pump assembly was replaced with a fresh overhauled unit, then the aircraft was returned to service."

*(Expected ranges would have been most helpful here to add perspective. Of the sixteen 'defective' or corroded drive shafts for these engine-driven pumps, the lowest time is 790.0 hours; the highest time 5581.0 hours; the average 3,597.5 hours. This yields an equivalent 154—24-hour days of flying!)*

Part Time (since overhaul): 4,666.0 hours *(one of sixteen pumps)*.

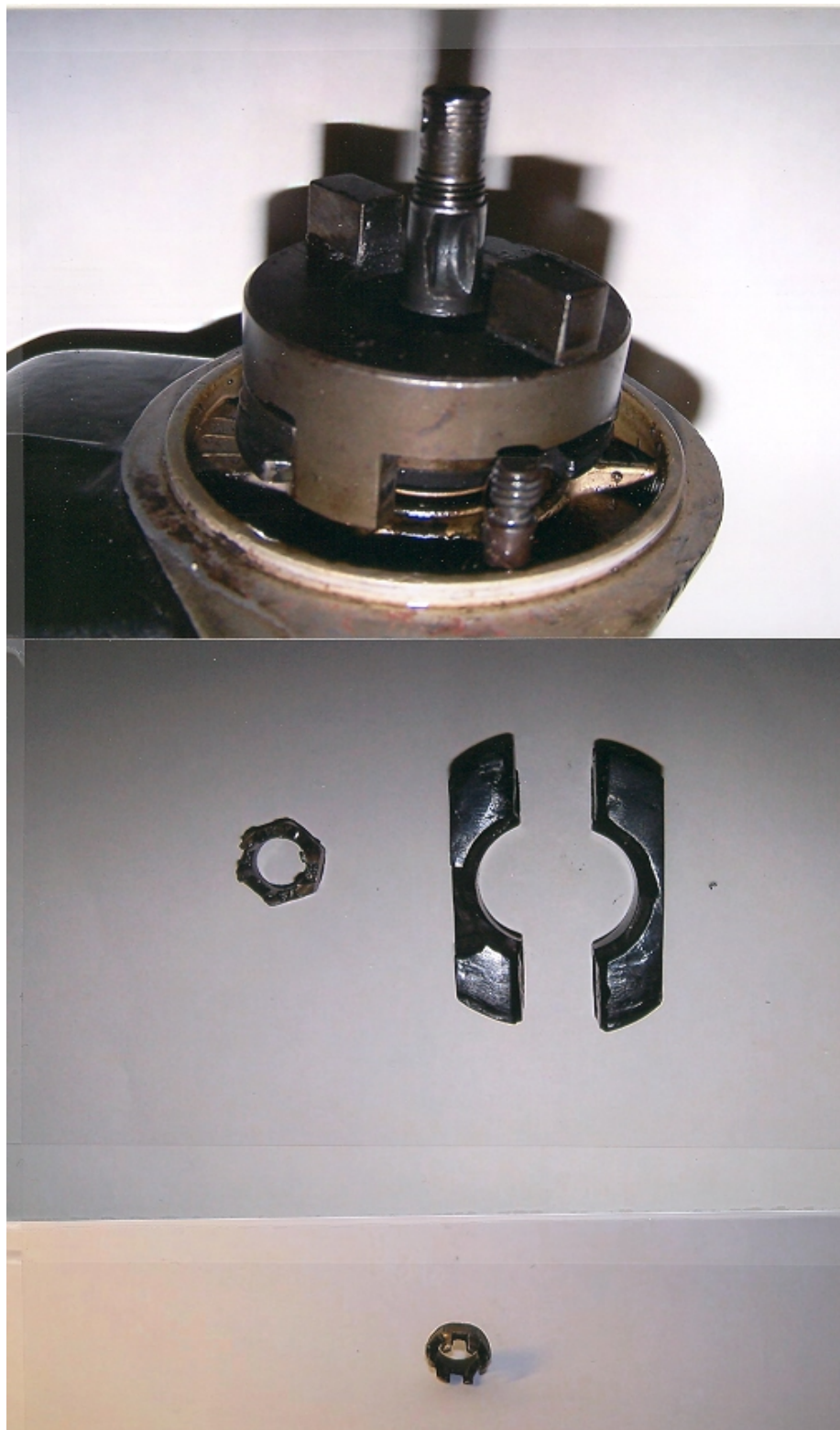
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## TCM MAGNETO

### **TCM Magneto: S6LSC-21; Stripped Shaft Threads; ATA 7414**

The attending mechanic writes, "This magneto was removed from the engine for routine maintenance and inspection. The threads on the magneto shaft and nut were completely stripped *(and)* the slot in the shaft for the Woodruff key was wallowed out. The cotter-key retaining the nut to the shaft was still in place. At the time of removal the engine was operating normally. Only the magneto bushings and retainer were holding the impulse coupling in place. It is my opinion that the drive shaft and/or the Woodruff key were defective at the time of manufacture. Undetected, this condition can lead to complete engine failure."

*(This magneto belongs to a Lycoming O-540-B2C5 thrusting a Piper PA-25.)*



Part Time (since overhaul): 740.7 hours.

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## POWERPLANTS

### ECI

#### **ECI Cylinders: TIST71.2BCA; Cracked Cylinders; ATA 8530**

A technician for a repair station describes the status of the TSIO-520-M Continental engine equipped with *Engine Components, Inc.* cylinders. "...five of six cylinders are cracked." (*Four exhaust side locations, one cylinder found with an intake crack.*)

Parts Total Time: 439.5 hours.

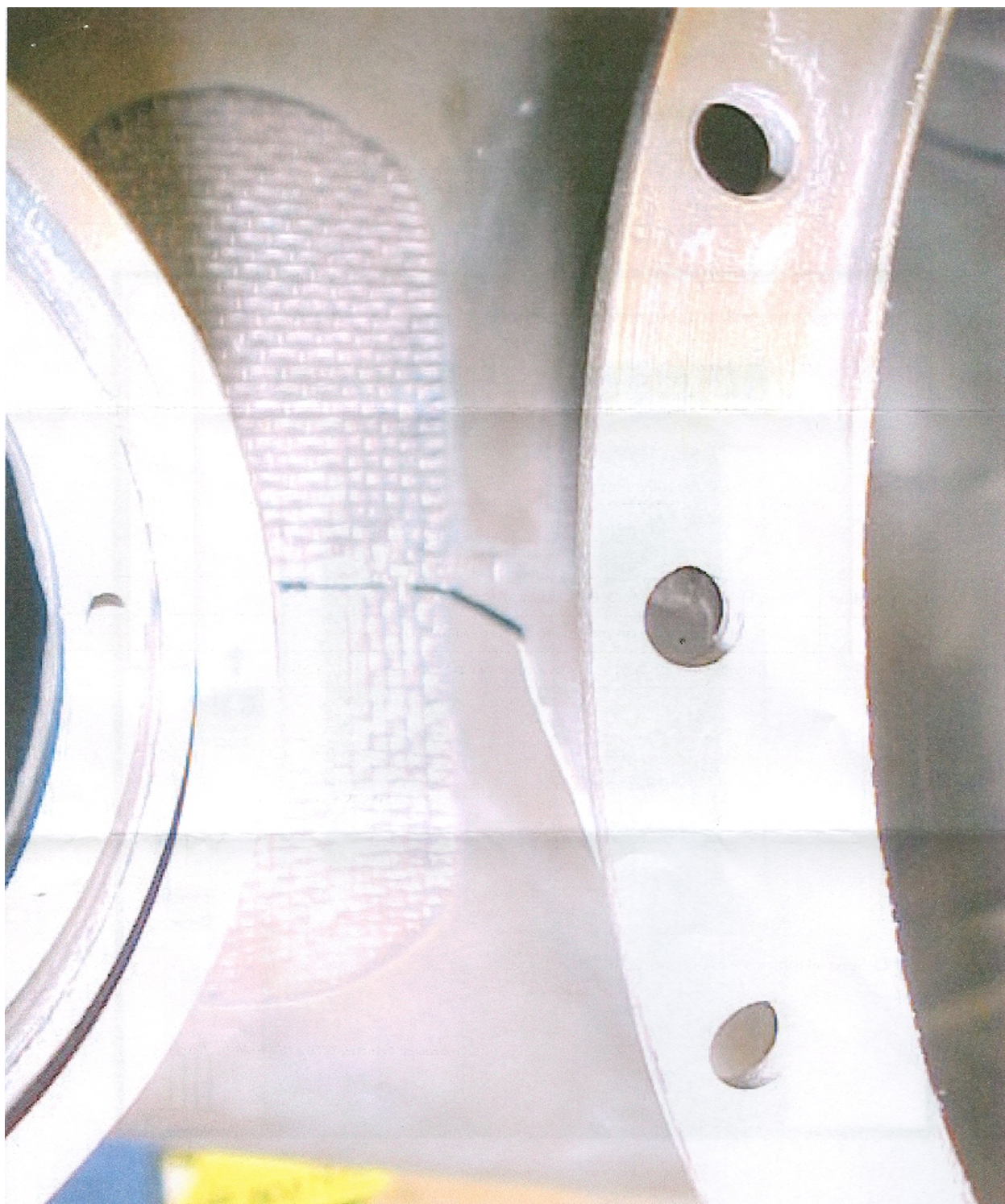
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### ROLLS ROYCE

#### **Rolls Royce: 250C20B; Cracked Combustion Cans; ATA 7240**

A helicopter mechanic relates his pilot's complaint "...that the TOT (*turbine outlet temperature*) suddenly went 40 degrees Centigrade hot. (*Inspection*) found the combustion can (*P/N 6870992*) cracked. The unit was replaced."













*(A search of the FAA Service Difficulty Reporting System data base revealed 20 separate reports for this P/N since 1993.)*

Part Total Time: (unknown).

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## AIR NOTES

### ELECTRONIC VERSION OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT

One of the recent improvements to the Flight Standards Service Aviation Information Internet web site is the inclusion of FAA Form 8010-4, Malfunction or Defect Report. This web site is still under construction and further changes will be made; however, the site is now active, usable, and contains a great deal of information.

Various electronic versions of this form have been used in the past; however, this new electronic version is more user friendly and replaces all other versions. You can complete the form online and submit the information electronically. The form is used for all aircraft except certificated air carriers who are provided a different electronic form. The Internet address is: <http://av-info.faa.gov/sdrx>

When the page opens, select "M or D Submission Form" and, when complete, use the "Add Service Difficulty Report" button at the top left to send the form. Many of you have inquired about this service. It is now available, and we encourage everyone to use this format when submitting aviation, service-related information.

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### PAPER COPY OF FAA FORM 8010-4, MALFUNCTION OR DEFECT REPORT

In the past, the last two pages of the Alerts contained a paper copy of FAA Form 8010-4, Malfunction or Defect Report. To meet the requirements of \*Section 508, this form will no longer be published in the Alerts; however, the form is available on the Internet at: <http://forms.faa.gov/forms/faa8010-4.pdf>. You can still download and complete the form as you have in the past.

\*Section 508 was enacted to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technologies that will help achieve these goals.

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### INTERNET SERVICE DIFFICULTY REPORTING (iSDR) WEB SITE

The Federal Aviation Administration (FAA) Internet Service Difficulty Reporting (iSDR) web site is the front-end for the Service Difficulty Reporting System (SDRS) data base that is maintained by the Aviation Data Systems Branch, AFS-620, in Oklahoma City, Oklahoma. The iSDR web site supports the Flight Standards Service (AFS), Service Difficulty Program by providing the aviation community with a voluntary and electronic means to conveniently submit in-service reports of failures, malfunctions, or defects on aeronautical products. The objective of the Service Difficulty Program is to achieve prompt correction of conditions adversely affecting continued airworthiness of aeronautical products. To accomplish this, Mechanical Reliability Reports (MRRs), Malfunction or Defect Reports (M or Ds), or Service Difficulty Reports (SDRs) as they are commonly called, are collected, converted into a common SDR format, stored, and made available to the appropriate segments of the FAA, the aviation community, and the general public for review and analysis. SDR data is accessible through the "Query SDR data" feature on the iSDR web site at: <http://av-info.faa.gov/sdrx/>.

A report should be filed whenever a system, component, or part of an aircraft, powerplant, propeller, or appliance fails to function in a normal or usual manner. In addition, if a system, component, or part of an aircraft, powerplant, propeller, or appliance has a flaw or imperfection, which impairs or may impair its future function, it is considered defective and should be reported under the Service Difficulty Program.

The collection, collation, analysis of data, and the rapid dissemination of mechanical discrepancies, alerts, and trend information to the appropriate segments of the FAA and the aviation community provides an effective and economical method of ensuring future aviation safety.



The FAA analyzes SDR data for safety implications and reviews the data to identify possible trends that may not be apparent regionally or to individual operators. As a result, the FAA may disseminate safety information to a particular section of the aviation community. The FAA also may adopt new regulations or issue airworthiness directives (ADs) to address a specific problem.

The iSDR web site provides an electronic means for the general aviation community to voluntarily submit reports, and may serve as an alternative means for operators and air agencies to comply with the reporting requirements of 14 Title of the Code of Federal Regulations (CFR) Section 121.703, 125.409, 135.415, and 145.221, if accepted by their certificate-holding district office. FAA Aviation Safety Inspectors may also report service difficulty information when they conduct routine aircraft maintenance surveillance as well as accident and incident investigations.

The SDRS data base contains records dating back to 1974. At the current time, we are receiving approximately 40,000 records per year. Reports may be submitted to the iSDR web site on active data entry form or submitted hardcopy to the address below.

The SDRS and iSDR web site point of contact is:

John Jackson  
Service Difficulty Reporting System, Program Manager  
Aviation Data Systems Branch, AFS-620  
P.O. Box 25082  
Oklahoma City, OK 73125  
Telephone: (405) 954-6486  
SDRS Program Manager e-mail address: [9-AMC-SDR-ProgMgr@faa.gov](mailto:9-AMC-SDR-ProgMgr@faa.gov)

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### IF YOU WANT TO CONTACT US

We welcome your comments, suggestions, and questions. You may use any of the following means of communication to submit reports concerning aviation-related occurrences.

Editor: Daniel Roller (405) 954-3646  
FAX: (405) 954-4570 or (405) 954-4655

E-mail address: [Daniel.Roller@faa.gov](mailto:Daniel.Roller@faa.gov)

Mailing address: FAA, **ATTN: AFS-620 ALERTS**, P.O. Box 25082, Oklahoma City, OK 73125-5029

You can access current and back issues of this publication from the internet at:  
<http://av-info.faa.gov/>. Select the General Aviation Airworthiness Alerts heading.

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## AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted for the previous month, which have been entered into the FAA Service Difficulty Reporting (SDR) System data base. This is not an all-inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

FAA  
Aviation Data Systems Branch, AFS-620  
PO Box 25082  
Oklahoma City, OK 73125

**To retrieve the complete report, click on the Control Number located in each report.** These reports contain raw data that has not been edited. Also, because these reports contain raw data, the pages containing the raw data are not numbered.

**If you require further detail please contact AFS-620 at the address above.**

# Federal Aviation Administration

## Service Difficulty Report Data

Sorted by aircraft make and model then engine make and model. This report derives from unverified information submitted by the aviation community without FAA review for accuracy.

Control Number	Aircraft Make	Engine Make	Component Make	Part Name	Part Condition
Difficulty Date	Aircraft Model	Engine Model	Component Model	Part Number	Part Location
<a href="#">2006FA0001066</a>				LIFE RAFT	DAMAGED
9/26/2006				46FASA2303603	CABIN
LIFE RAFT PARTIALLY INADVERTENTLY INFLATED IN CUSTOMERS AIRCRAFT CABIN AREA (UNDER SEAT CUSHION) WHICH COULD HAVE POSSIBLY CAUSED SEVERE DAMAGE TO THE AIRCRAFT, INJURY TO PERSONS OR LOSS OF AIRCRAFT CONTROL HAD LIFE RAFT COMPLETELY INFLATED IN-FLIGHT. THE LIFE RAFT WAS REMOVED FROM THE AIRCRAFT CABIN BY THE OPERATOR BEFORE IT HAD COMPLETELY INFLATED MINIMIZING THE POSSIBILITY OF SEVERE DAMAGE. (K)					
<a href="#">WP07110306</a>		GARRTT		BEARING	FAILED
11/3/2006		TPE3312U		3103336	ENGINE
ENGINE WAS SENT TO MFG FOR A FLAME OUT INVESTIGATION. AT RECEIPT 2 KEY OBSERVATIONS WERE MADE. FIRST THE FILTER BYPASS INDICATOR WAS EXTENDED AND SECOND THE ROTATING GROUP WOULD NOT ROTATE. ONCE THE NOSE CONE AND DIAPHRAGM WERE REMOVED METAL WAS SEEN SHED THROUGHOUT GEARBOX. THE BINDING WAS FOUND TO BE DUE TO DAMAGE BETWEEN THE BULL GEAR AND HIGH SPEED PINION MATING TEETH. UPON FURTHER DISASSEMBLY, COMPRESSOR BEARING WAS DESTROYED. MFG BELIEVES THE COMPRESSOR BEARING AND NUT LOST THEIR FUNCTIONALITY, CAUSING THE ROTATING GROUP TO SHIFT FORWARD AND CAUSE RUBS. OVERALL THE SECONDARY DAMAGE DUE TO THIS EVENT WAS MINOR.					
<a href="#">2006FA0001126</a>		PWA		PUMP	DAMAGED
11/28/2006		JT8D15A		378200	FUEL SYSTEM
UNIT RECEIVED ON 13 NOV 2006. UNIT PROCESSED ON A REPAIR WORKSHOP IAW CUSTOMER REQUIREMENTS. PUMP FAILED AS RECEIVED BENCH TEST FOR LOW FUEL FLOWS. PUMP DISASSEMBLED IAW CMM REF 73-11-1 TO INVESTIGATE INCOMING TEST FINDINGS. DISASSEMBLY OF FUEL PUMP REVEALED EXTENSIVE DAMAGE TO IMPELLER ASSY. PN 216916. DAMAGE WAS CAUSED AS A RESULT OF QTY 2 NUTS ENTERING FUEL PUMP FROM AN UNKNOWN EXTERIOR SOURCE.					
<a href="#">TL9R200600003</a>	AIRBUS			BRAKE	DEBONDED
11/16/2006	A300*			C200601004	MLG
OPERATOR/CUSTOMER REPORTED THIS BRAKE AS (BRAKE STUCK). SUBSEQUENT INSPECTION OF THE BRAKE AT THIS REPAIR STATION DOCUMENTED THAT THE TEMPERATURE SENSOR WAS BENT, AND PARTS OF THE HEAT STACK HAD DELINED.					
<a href="#">2006FA0001040</a>	BEECH	PWA		SENSOR	DAMAGED
10/5/2006	400A	JT15D5		310033501	LT ENGINE N1
IN NORMAL FLIGHT, THE EFC OFF(ELECTRONIC FUEL CONTROL) ANNUNCIATOR LIGHT ILLUMINATED. THE PILOTS ATTEMPTED TO RESET THE EFC SEVERAL TIMES, FAILING AT EVERY ATTEMPT. TROUBLESHOOTING REVEALED DAMAGE TO THE N1 SENSOR PROBE CAUSED BY THE N1 PICK-UP, AT 24 EQUALLY-SPACED TOOTHED WHEEL INTEGRAL TO THE COMPRESSOR SHAFT. MINUTE DAMAGE WAS INFLICTED ON THE PROBE, CONSISTING OF AN EXTREMELY SHALLOW GROOVE CUT INTO THE END OF THE PROBE. THE TOOTHED WHEEL DID NOT APPEAR DAMAGED. THE PROBE WAS PROBABLY DAMAGED DUE TO THE IMPROPER INSTALLATION. (K)					
<a href="#">IALFAASDR1</a>	BEECH	CONT		WIRE HARNESS	BROKEN
11/3/2006	58	IO520*			AIR DRIVEN GEN

AIR DRIVEN GENERATOR TEST IN FLIGHT, FOUND NO OUTPUT. FOUND WIRING HARNESS FROM ADG TO ADG BUSS BURNED-BROKEN AT CONNECTOR BACKSHELL. CONNECTOR AND WIRING REPLACED ADG INSPECTED AND TESTED SERVICEABLE.

<a href="#">EVGR1113735</a>	BEECH	PWA	DOOR FRAME	CORRODED
11/9/2006	65A901	PT6A20		BS 255

CORROSION WAS FOUND AT THE AFT DOOR FRAME AT FUSELAGE STATION 255.5 JUST BELOW AND OUT BOARD OF THE DOOR SNUBBER MOUNT. DAMAGE WAS REPAIRED IAW SIRM PN 9839006C, DATED MARCH 2003, ATA 20-10-03 FIGURE 202, PAGES 204 AND 205 AND ATA 20-10-34, FIGURE 201, PAGES 201 AND 202.

<a href="#">LX5R200600002</a>	BEECH	PWA	BEECH	WIRE HARNESS	SHORTED
11/15/2006	B300	PT6A60A		K31C22	AUTOFEATHER SYS

UPON TAKEOFF ROLL THE CREW GOT THE AUTOFEATHER OFF LIGHT AND THE MASTER CAUTION LIGHT. THE CREW THEN OPTED TO ABORT TAKEOFF ROLL AND RETURN TO RAMP WITHOUT INCIDENT. UPON RETURNING TO RAMP THE CREW NOTICED THAT THE AUTOFEATHER CIRCUIT BREAKER HAD POPPED, IT WAS RESET BUT WOULD POP AGAIN UPON PUSHING THE LT POWER LEVER FORWARD. THE PLANE WAS BROUGHT INTO MAINTENANCE AND THE MECHANIC FOUND THAT THERE WAS A CHAFED WIRE BEHIND THE INSTRUMENT PANEL FOR THE AUTOFEATHER SWITCH. THIS WIRE WAS REPAIRED AND THE AIRCRAFT WAS OPS CHECKED AND RETURNED TO SERVICE.

<a href="#">2006FA0001089</a>	BEECH		HINGE PIN	LOOSE
11/15/2006	V35B		MS203922C63	CABIN DOOR

CABIN DOOR TOP HINGE PIN KEEPER COTTER PIN FAILED. THE PIN, A CLEVIS BOLT, WAS INSTALLED FROM THE BOTTOM DUE TO STRUCTURAL DESIGN LIMITATIONS. THE FAILURE OF THE COTTER PIN ALLOWED THE CLEVIS PIN THE PARTIALLY FALL OUT OF PLACE ALLOWING THE DOOR TO MOVE. COMPLETE LOSS OF THE PIN MIGHT HAVE ALLOWED THE DOOR TO SEPARATE FROM THE AIRCRAFT IN FLIGHT. POSSIBLE IMPACT WITH THE RT RUDDERVATOR. CLOSER INSPECTION AT ANNUAL AND INSTALLING THE PIN FROM THE TOP WOULD HELP AVOID THE PROBLEM.

<a href="#">2006FA0001093</a>	BEECH	CONT	HINGE PIN	LOOSE
11/15/2006	V35B	IO520*	MS203922C63	CABIN DOOR

CABIN DOOR TOP HINGE PIN KEEPER COTTER PIN FAILED. THE PIN, A CLEVIS BOLT, WAS INSTALLED FROM THE BOTTOM DUE TO STRUCTURAL DESIGN LIMITATIONS. THE FAILURE OF THE COTTER PIN ALLOWED THE CLEVIS PIN THE PARTIALLY FALL OUT OF PLACE ALLOWING THE DOOR TO MOVE. COMPLETE LOSS OF THE PIN MIGHT HAVE ALLOWED THE DOOR TO SEPARATE FROM THE AIRCRAFT IN FLIGHT. POSSIBLE IMPACT WITH THE RT RUDDERVATOR. CLOSER INSPECTION AT ANNUAL AND INSTALLING THE PIN FROM THE TOP WOULD HELP AVOID THE PROBLEM.

<a href="#">2006FA0001036</a>	BELL	ALLSN	BELL	SUPPORT	CRACKED
10/31/2006	206L3	250C30		206033426001	TAILBOOM

CRACK FOUND AT TAIL ROTOR GEARBOX AFT LT MOUNTING HOLE ON TAILBOOM CASTING. REPLACED GEARBOX SUPPORT CASTING.

<a href="#">2006FA0001017</a>	BELL		SUPPORT BRACKET	LOOSE
10/20/2006	UH1H		205030889015S	TAILBOOM

TAIL BOOM ELEVATOR SUPPORT BRACKET LOOSE. (WORKING RIVETS/SITE OF PREVIOUS REPAIR WITH PULL TYPE RIVETS).

<a href="#">2006FA0001042</a>	BOEING	PWA	SKIN	CORRODED
10/15/2006	727191	JT8D7B		BS 360 S24-26R

CORROSION ON FUSELAGE SKIN AT BS 360 CIRCUMFERENTIAL SKIN JOINT BETWEEN STR 24R AND STR 26R. (K)

<a href="#">2006FA0001044</a>	BOEING	PWA	RIB	CRACKED
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10/15/2006	727191	JT8D7B	65174375	HORIZONTAL STAB
LT HORIZONTAL STABILIZER ELEVATOR HINGE SUPPORT RIB CRACKED (2.5 INCHES) ON OB, UPPER, AFT SIDE OF RIB AT ELEV STA 99.79. (K)				
<a href="#">2006FA0001045</a>	BOEING	PWA	RIB	CRACKED
10/15/2006	727191	JT8D7B	651742812	HORIZONTAL STAB
RT HORZ STAB ELEVATOR HINGE SUPPORT RIB CRACKED (2.5 INCH) ON UPPER FLANGE AT ELEV STA 17.20. (K)				
<a href="#">2006FA0001046</a>	BOEING	PWA	SKIN	CORRODED
10/15/2006	727191	JT8D7B		BS 480 S7-8L
EXTERNAL FUSELAGE SKIN CORRODED AT STA 480, STR 7L TO STR 8L, CIRCUMFERENTIAL JOINT. (K)				
<a href="#">2006FA0001047</a>	BOEING	PWA	SKIN	CORRODED
10/15/2006	727191	JT8D7B		BS 480 S9-10L
EXTERNAL FUSELAGE SKIN CORRODED AT STA 480, STR 9L TO STR 10L, CIRCUMFERENTIAL JOINT. (K)				
<a href="#">2006FA0001043</a>	BOEING	PWA	SKIN	CORRODED
10/15/2006	727191	JT8D7B		BS 441 S17R
CORROSION ON FUSELAGE SKIN AT BS 441, STR 17R. (K)				
<a href="#">2006FA0001084</a>	BOEING	BOEING	HOUSING	ERODED
10/6/2006	737*		65447822	VALVE
(REF: 211704/QN1) PIN HOLE ERODED IN NR 2 PORT HEEL. MATERIAL DEFECT/ TIME. (K)				
<a href="#">SR0M200600017</a>	BOEING	PWA	ACCESSORY UNIT	FAULTY
11/9/2006	737205	JT8D17A	6552811109	RT MLG
DURING DEPARTURE, UPON LANDING GEAR RETRACTION RT MLG INDICATION REMAINED RED. MOVED LANDING GEAR HANDLE TO OFF AND THEN BACK TO UP, RED INDICATOR LIGHT REMAINED ON. SELECTED GEAR DOWN AND GOT 3 GREEN AND NO RED. RETURNED TO ANC WITH NORMAL LANDING. WITH AIRCRAFT ON JACKS FOUND LANDING GEAR ACCESSORY UNIT TO BE FAULTY. REPLACED LANDING GEAR ACCESSORY UNIT AND ALL OPERATIONS CHECK NORMAL. AIRCRAFT RELEASED WITH NORMAL OPERATIONS ON SUBSEQUENT FLIGHTS.				
<a href="#">PIDR2006041</a>	BOEING	GE	FRAME	CRACKED
11/7/2006	737301	CFM56*		BS 440
FORWARD FRAME OF THE FORWARD CARGO DOOR CUTOUT (BS 440 FRAME) CRACKED AT LOWER FORWARD STOP FITTING. REPAIRED CRACK PER INSTRUCTIONS FROM MFG WITH FAA APPROVED 8100-9 DATED NOV.6, 2006.				
<a href="#">PIDR2006042</a>	BOEING	GE	BEAR STRAP	CRACKED
10/31/2006	737301	CFM56*		FUSELAGE
CRACK INDICATION IN FASTENER HOLE JUST FORWARD AND BELOW THE L1 DOOR UPPER HINGE CUTOUT IN THE BEAR STRAP (SECOND LAYER) CONFIRMED BY HFEC. REPAIRED IAW MFG INSTRUCTIONS WITH FAA APPROVED 8100-9 DATED NOV 3, 2006.				
<a href="#">PIDR2006038</a>	BOEING	GE	FITTING	CRACKED
10/27/2006	737301	CFM56*		LT MLG
LT MLG FITTINGS CRACKED AT THE NR 2 HOLE. REPLACED FITTING IAW SB 737-57-1216.				
<a href="#">PIDR2006039</a>	BOEING	GE	SKIN	DELAMINATED
11/1/2006	737301	CFM56*		LT FORE FLAP
DELAMINATION AT THE IB END OF THE LT OB FORE FLAP. REPAIRED DAMAGED AREA IAW SRM 51-70-10.				

<a href="#">PIDR2006043</a>	BOEING		FITTING	CORRODED
10/26/2006	7373B7		65538344	DRAW ANGLE
CORROSION ON THE FORWARD FACE AND INSIDE DIAMETER OF THE RT FORWARD DRAW ANGLE FITTING AT THE VERTICAL STABILIZER AFT RT ATTACH FITTING. REPLACED FITTING IAW SRM 51-40-02, 51-40-03, AND DRAWING NR 65-53744.				
<a href="#">PIDR2006045</a>	BOEING		STRUCTURE	CRACKED
11/3/2006	7373B7			FUSELAGE
FASTENER HOLES CRACKED AT THE UPPER HINGE CUTOUT AND LOWER HINGE CUTOUT OF THE LT FORWARD ENTRY DOOR. REPAIRED AREA IAW MESSAGE 1-232472835 WITH FAA DER APPROVED 8100-9 DATED NOV.3, 2006.				
<a href="#">PIDR2006044</a>	BOEING		SKIN	DAMAGED
11/3/2006	7373B7			FUSELAGE
FASTENER HOLES JUST FORWARD AND ABOVE THE RIGHT FWD DOOR UPPER HINGE CUTOUT AND JUST FORWARD OF THE LOWER HINGE CUTOUT ARE CRACKED. REPAIRED SKIN AND BEAR STRAP IAW MESSAGES 1-232472835 WITH FAA DER APPROVED 8100-9 DATED NOV. 3, 2006.				
<a href="#">PIDR2006047</a>	BOEING		HINGE	DAMAGED
11/15/2006	7373B7			RT ELEVATOR
RT ELEVATOR LOWER SIDE AT NR 5 HINGE HAS DAMAGE. REPAIRED IAW SRM 51-70-17 AND MFG MESSAGE NR 1-247071893 WITH FAA DOA APPROVAL FORM 8100-9.				
<a href="#">PIDR2006040</a>	BOEING	GE	TAB	SEPARATED
10/31/2006	7373B7	CFM56*		RT AILERON
TRAILING EDGE OF THE RT AILERON TAB IS SEPARATED. REPAIRED MINOR DAMAGE PER SRM 51-70-16. BALANCED TAB, NO WEIGHT CHANGE.				
<a href="#">AMCR200600003</a>	BRAERO	GARRTT	TIRE	LEAKING
11/7/2006	BAE125800A	TFE731*	237K232	MLG
AFTER MOUNTING A NEW GOODYEAR TIRE ON AN AHA1814 WHEEL, THE TIRE FAILED THE 24 HOUR LEAK CHECK. EXCESSIVE VENTING WAS SEEN FROM MANY VENT HOLES IN THE BEAD AREA. TWO ADDITIONAL 24 HOUR CHECKS WERE PERFORMED AND LEAK RATE WAS ABOUT 19 PERCENT LOSS. AGAIN, EXCESSIVE LEAKING FROM VENT HOLES. TIRE RETURNED FOR WARRANTY.				
<a href="#">2006FA0001055</a>	CESSNA		PRESSURE SWITCH	LEAKING
10/25/2006	172R		83278	ENGINE OIL
AC WAS MAKING AN APPROACH AND HAD OIL SPLASH ON THE WINDSHIELD. PILOT MADE A FULL STOP AND TAXIED BACK TO RAMP. OIL PRESSURE AND TEMPERATURE STAYED IN THE GREEN. UPON INVESTIGATION, FOUND THE CAUSE OF THE OIL LEAK TO BE THE (SENSOR-OIL PRESSURE (HOBBS-SWITCH) PN 83278 TO BE THE SOURCE OF THE LEAK. THE SENSOR HAD FAILED INTERNALLY AND THE OIL WAS COMING FROM AROUND THE PRONGS INSIDE THE CONNECTOR AREA. PROBABLE CAUSE-BAD DESIGN. PREVENT REOCCURRENCES-UNKNOWN. (K)				
<a href="#">2006FA0001037</a>	CESSNA	LYC	EXHAUST VALVE	STUCK
11/1/2006	182S	IO540AB1A5	LW19001	ENGINE
DURING A PHASE 2 INSPECTION, CYLINDER NR 5 WAS FOUND TO HAVE LOW COMPRESSION (5/80) WITH A STRONG LEAK PASSED THE EXHAUST VALVE. SUBSEQUENT INSPECTION FOLLOWING THE INSTRUCTIONS FOUND IN SB 388C REVEALED THE CYLINDER DID NOT MEET THE MEASUREMENT CRITERIA FOR THE EXHAUST VALVE GUIDE. THE MEASUREMENT TAKEN BEFORE REAMING (IAW SB388C) WAS .007 INCH. THE EXHAUST VALVE WAS REMOVED FROM THE CYLINDER (WITH THE CYLINDER INSTALLED) AND EXHAUST VALVE GUIDE WAS REAMED. A COMPRESSION CHECK WAS TAKEN AGAIN ON CYLINDER NR 5 AND COMPRESSION AFTER REAMING WAS 77/80. MEASUREMENT AFTER REAMING WAS .0175 INCH. THE PERMISSIBLE RANGE IS .015 TO .030 INCH. CYLINDER NR 3				

ALSO FAILED THE MEASUREMENT CRITERIA OF SB 388C. THIS EXHAUST VALVE GUIDE WAS ALSO REAMED TO OBTAIN A PERMISSIBLE MEASUREMENT. MEASUREMENT TAKEN BEFORE REAMING WAS .006 INCH. MEASUREMENT AFTER REAMING WAS .018 INCH. ENGINE WAS MFG NEW BY ON 07/05/2005. IAW MFG SERVICE INSTRUCTION 1485, THIS ENGINE WOULD HAVE BEEN SUPPLIED WITH EXHAUST VALVE GUIDES MADE OF THE (IMPROVED MATERIAL) AND SHOULD ONLY NEED INSPECTED EVERY 1,000 HOURS. ENGINE WOULD NOT NEED REINSPECTED BEFORE TBO AS TBO IS 2,000 HOURS. THIS VALVE WAS FOUND STUCK AT 673.0 HOURS,TSN. THE INSPECTION LISTED IN SB 388C WAS BEING PERFORMED FOR THE SECOND TIME ON THIS ENGINE EVEN THOUGH WE HAD NOT YET REACHED THE INTERVAL THAT MFG HAS LISTED FOR THE INITIAL INSPECTION. REPAIR FACILITY HAS BEEN COMPLYING WITH MFG SB388C AT MUCH SHORTER INTERVALS THAN THOSE RECOMMENDED. SB 388C WAS PERFORMED ON THIS ENGINE AT THE FOLLOWING TSN: 376.1 HRS (ALL EXHAUST VALVE GUIDES MEASURED IAW SB388C) 673.0 (NR 3 AND NR 5 EXHAUST VALVES NEEDED REAMED).

<a href="#">2006FA0001069</a>	CESSNA	LYC	EXHAUST VALVE	STUCK
11/9/2006	182S	IO540AB1A5	LW19001	ENGINE CYLINDER

STUCK EXHAUST VALVES ON NR 3 CYLINDER FOUND DURING PHASE 2 INSPECTION.

<a href="#">2006FA0001021</a>	CESSNA	WILINT	VALVE	MALFUNCTIONED
10/6/2006	525	FJ44	991242339	MLG

CREW REPORTED (HYDRAULIC PRESSURE ON) LIGHT STAYED ILLUMINATED AFTER LANDING GEAR RETRACTION. REPLACED LOADING VALVE AND OPERATIONALLY CHECKED HYDRAULIC SYSTEM. AIRCRAFT WAS RETURNED TO SERVICE. (K)

<a href="#">2006FA0001127</a>	CESSNA	PWA	HINGE	CORRODED
11/27/2006	550	JT15D4	6511695204	UNKNOWN

AT INSPECTION THE HINGE WAS FOUND CORRODED AND THE PINS WORN PAST LIMITS. A FACTORY NEW HINGE ASSY WAS ORDERED AND INSTALLED. UPON COMPLETION OF THE WORK THE AIRCRAFT WAS PRESSURIZED AND THE HINGE ASSY WAS FOUND TO BE LEAKING. UPON CLOSER INSPECTION THE SKIN THAT ATTACHES TO THE HINGE WAS NOT SEALED. MFG WAS CONTACTED WITH THE REQUEST TO PAY FOR THE SEALANT AND MAGNESIUM RIVETS. WE WERE INFORMED THAT MFG WILL NOT PAY FOR THESE PARTS UNLESS WE RETURNED THE HINGE ASSY. DUE TO THE AMOUNT OF TIME TO INSTALL AND FIT THIS HINGE WE DECLINED. MFG NEEDS TO INSPECT MORE CLOSELY THERE PARTS OR BE ABLE TO WORK BETTER WITH THEIR CUSTOMERS.

<a href="#">2006FA0001039</a>	CESSNA	PWA	SWITCH	MALFUNCTIONED
10/11/2006	560CESSNA	JT15D5	99121202	NOSE GEAR ACTUAT

NOSE GEAR ACTUATOR JAMMED IN THE EXTENDED POSITION. WOULD NOT RETRACT. FOUND ACTUATOR FAULTY INTERANA SWITCH. REPLACED NOSE GEAR ACTUATOR. ACTUATOR PARET NR 15232005, SN 842. (K)

<a href="#">2006FA0001058</a>	CESSNA	CONT	PITOT LINE	CORRODED
10/18/2006	T310Q	TSIO520*	0800106379	

DURING A ROUTINE PITOT/STATIC TEST, FOUND THAT THE PITOT SYSTEM WAS LEAKING BEYOND LIMITS. THE LEAKAGE WAS DETERMINED TO BE IN THE TUBING FROM THE PITOT TUBE TO THE FORWARD CABIN BULKHEAD FITTING. UPON REMOVING THE TUBE (PN 0800106-379) SEVERE CORROSION WAS FOUND AT THE AFT END, NEAR THE FITTING. THIS PORTION WAS FOUND HALF BURIED IN THE OUTER INSULATION OF A HEAT DUCT ON THE LT OB SIDE, ALLOWING MOISTURE TO BE TRAPPED. THIS AREA IS DIFFICULT TO INSPECT AND DAMAGE TO THE TUBE COULD GO UNDISCOVERED UNTIL A LEAK TEST IS PERFORMED. IT IS RECOMMENDED THAT OPERATORS OF AC HAVE THIS LINE INSPECTED, AND THAT CHAFE AND CORROSION PROTECTION BE APPLIED TO THE TUBE WHERE IT CONTACTS THE INSULATION OF THE HEAT DUCT. (K)

<a href="#">2006FA0001053</a>	DIAMON		CAP	LEAKING
10/10/2006	DA40		C36L	WING FUEL TANK

UPON PREFLIGHT OF THE AIRCRAFT, AND AFTER SITTING OUTSIDE OF THE HANGAR DURING A RAINSTORM, 2 OR 3 SUMP GLASSES WERE FILLED WITH WATER FROM EACH WING FUEL TANK SUMP DRAIN. FURTHER INSPECTION OF 9 OTHER AC OF THE SAME MAKE AND MODEL FOUND 2 OTHER AC WITH SIMILAR AMOUNTS OF WATER IN THE SUMP DRAINS. ALL 3 OF THESE AC WERE TIED DOWN OUTSIDE DURING WEATHER ABOVE STATED. INSPECTION OF THE FUEL FILLER FLANGE/CAP ASSY ON ALL 12 AC REVEALED THE SAME LOOSE FUEL CAP CONDITION. ALL

AC FUEL CAPS WERE TIGHTENED AS A PRECAUTION. THE O-RING SEALS DID NOT APPEAR TO BE DAMAGED. (K)

<a href="#">2006FA0001052</a>	DIAMON	CAP	LEAKING
10/10/2006	DA40	C36L	WING FUEL TANK
UPON PREFLIGHT OF THE AIRCRAFT, AND AFTER SITTING OUTSIDE OF THE HANGAR DURING A RAINSTORM, 2 OR 3 SUMP GLASSES WERE FILLED WITH WATER FROM EACH WING FUEL TANK SUMP DRAIN. FURTHER INSPECTION OF 9 OTHER AC OF THE SAME MAKE AND MODEL FOUND 2 OTHER AC WITH SIMILAR AMOUNTS OF WATER IN THE SUMP DRAINS. ALL 3 OF THESE AC WERE TIED DOWN OUTSIDE DURING WEATHER ABOVE STATED. INSPECTION OF THE FUEL FILLER FLANGE/CAP ASSY ON ALL 12 AIRCRAFT REVEALED THE SAME LOOSE FUEL CAP CONDITION. ALL AC FUEL CAPS WERE TIGHTENED AS A PRECAUTION. THE O-RING SEALS DID NOT APPEAR TO BE DAMAGED. (K)			

<a href="#">2006FA0001051</a>	DIAMON	CONTROL STICK	DAMAGED
10/10/2006	DA40	D4122131200	CONTROL COLUMN
PILOTS CONTROL STICK GRIP BECAME LOOSE AND WOULD, IF PULLED ON, COULD BECOME DETACHED FROM THE CONTROL ASSEMBLY. CHECK BOTH CONTROL GRIPS FOR LOOSE INSTALLATION AND REATTACH WITH APPROVED ADHESIVE. (K)			

<a href="#">2006FA0001049</a>	DIAMON	CAP	LEAKING
10/10/2006	DA40	C36L	FUEL TANK
UPON PREFLIGHT OF THE AIRCRAFT, AND AFTER SITTING OUTSIDE OF THE HANGAR DURING A RAINSTORM, 2 TO 3 SUMP GLASSES WERE FILLED WITH WATER FROM EACH WING FUEL TANK SUMP DRAIN. FURTHER INSPECTION OF 9 OTHER AIRCRAFT OF THE SAME MAKE AND MODEL FOUND 2 OTHER AIRCRAFT WITH SIMILAR AMOUNTS OF WATER IN THE SUMP DRAINS. ALL 3 OF THESE AIRCRAFT WERE TIED DOWN OUTSIDE DURING WEATHER ABOVE STATED. INSPECTION OF THE FUEL FILLER FLANGE/CAP ASSEMBLY OF ALL TWELVE AIRCRAFT REVEALED THE SAME LOOSE FUEL CAP CONDITION. ALL AIRCRAFT FUEL CAPS WERE TIGHTEN AS A PRECAUTION. THE O-RING SEALS DID NOT APPEAR TO BE DAMAGED.			

<a href="#">2006FA0001050</a>	DIAMON	LYC	WIRE HARNESS	DAMAGED
10/25/2006	DA40	O360A4M	DA424064100	ALT/CB
TOTAL ELECTRICAL SYSTEM FAILURE IN FLIGHT. INSPECTION REVEALED THAT THE MAIN POWER WIRE'S RING TERMINAL TO THE ALTERNATOR HAD FAILED CAUSING ARCING WHICH SHORTED THE ALTERNATOR OUT AND CAUSED THE MAIN AND ESSENTIAL BUSS CIRCUIT BREAKERS TO POP. POSSIBLE CAUSE IS TOO SHORT OF A WIRE HARNESS WHICH DOES NOT ALLOW FOR ENGINE VIBRATION. REMEDIED WITH NEW ALTERNATOR AND NEW ALTERNATOR CABLE ASSY PROVIDED BY MFG. THE NEW CABLE ASSY IS A COUPLE OF INCHES LONGER TO PREVENT THIS FROM OCCURRING. (K)				

<a href="#">CMRR200611025</a>	DORNER	PWA	HONEYWELL	POWER SUPPLY	FAILED
10/17/2006	DO328300	PW306B	DU870	7018704902	EFIS
THE EICAS DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.					

<a href="#">CMRR200611024</a>	DORNER	PWA	HONEYWELL	POWER SUPPLY	FAILED
10/17/2006	DO328300	PW306B	DU870	7018704902	EFIS
THE NR 1 PFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N:7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.					

<a href="#">CMRR200611028</a>	DORNER	PWA	HONEYWELL	POWER SUPPLY	FAILED
10/17/2006	DO328300	PW306B	DU870	7018704902	EFIS
THE NR 4 MFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N 7018704-902 INSTALLED INSIDE					



THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.

<a href="#">CMRR200611027</a>	DORNER	PWA	HONEYWELL	POWER SUPPLY	FAILED
10/17/2006	DO328300	PW306B	DU870	7018704902	EFIS

THE NR 5 PFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N 7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.

<a href="#">CMRR200611026</a>	DORNER	PWA	HONEYWELL	POWER SUPPLY	FAILED
10/17/2006	DO328300	PW306B	DU870	7018704902	EFIS

THE NR 2 MFD DISPLAY UNIT REFERENCED HEREIN FAILED DURING GROUND OPERATIONS. THE SUSPECTED SPECIFIC COMPONENT FAILURE IS THE HIGH VOLTAGE POWER SUPPLY UNIT P/N 7018704-902 INSTALLED INSIDE THE CRT DISPLAY UNIT. FURTHER INSPECTION WILL BE REQUIRED TO VERIFY THE EXACT CAUSE OF THE DU FAILURE.

<a href="#">2006FA0001041</a>	HUGHES	LYC	DRIVE BELT	STRETCHED
10/6/2006	269C1	HIO360*	069A5512	MAIN ROTOR

NEW DRIVE BELTS WERE INSTALLED, STRETCHED FOR 24 HOURS, AND RE-ADJUSTED IAW MM. THE AIRCRAFT WAS RETURNED TO SERVICE AND .5 HOUR INTO THE FIRST FLIGHT THE PILOT NOTICED THE MAIN ROTOR RPM DECAYING AND ENGINE RPM INCREASING. A STEEP DESCENT WITH POWER WAS PERFORMED AND THE AIRCRAFT LANDED SAFELY. A SUBSEQUENT MAINTENANCE INSPECTION REVEALED THAT THE BELTS HAD CONTINUED TO STRETCH AFTER THE AIRCRAFT WAS RETURNED TO SERVICE CAUSING THE CLUTCH ACTUATOR TENSION TO BECOME EXCESSIVELY LOOSE. THIS ALLOWED THE BELTS TO SLIP ON THE DRIVE PULLEYS AND ALLOWED THE MAIN ROTOR RPM TO DROOP. (K)

<a href="#">2006FA0001048</a>	MOONEY	LYC	LEG ASSY	DAMAGED
10/3/2006	M20C	O360*	540004	NLG ASSY

NOSE GEAR COLLAPSED UPON LANDING. INITIAL INSPECTION FOUND BOTH TUBES ON THE NOSE GEAR LEG ASSEMBLY BROKEN. RETRACT MECHANISM TUBES BENT. UNABLE TO DETERMINE WHICH COMPONENTS WERE DAMAGED PRIOR TO THE INCIDENT. PILOT REPORTED THAT THE LANDING GEAR WAS HARDER THAN NORMAL TO RETRACT DURING THE LAST TAKEOFF AND EASIER TO EXTEND THAN NORMAL DURING THIS LANDING. (K)

<a href="#">2006FA0000971</a>	MOONEY	CONT	VALVE	LEAKING
9/26/2006	M20K	TSIO360GB	55P70D5E608	ENGINE FUEL

THE FUEL PRIMER DIVERTER VALVE P/N 642199 (P/N 55P70D5E-608) LEAKED FUEL OVER THE TOP OF THE ENGINE IN FLIGHT, IT WAS LEAKING SO MUCH THE ENGINE WOULD NOT KEEP RUNNING WITHOUT THE USE OF THE ELECTRIC BOOST PUMP. INITIALLY OUR MFG VENDOR GAVE ME A REPLACEMENT P/N 633862 AND SAID NO PARTS WERE AVAILABLE. SO I CONTACTED THE MFG ENGINEERING AND SPOKE WITH THEIR REPAIR STATION MANAGER. HE INFORMED ME THAT THEY HAD JUST OVERHAULED A VALVE THAT HAD CAUSED AN ENGINE FIRE, AND THEY OVERHAUL 8-10 A YEAR. HE ALSO SAID THE OVERHAULED VALVES HAVE PMA AND WILL NEVER LEAK AGAIN. I CALLED MFG AND PASSED ON THE PROBLEM TO THEIR TECH REP, HE DID INFORM ME THAT THEY DO IN FACT STOCK THE NEW P/N VALVE. I CANNOT FIND ANY BULLETINS OR AD'S AGAINST THE OLD VALVE. IT APPEARS THIS OLD STYLE VALVE IS A REAL SAFETY OF FLIGHT ISSUE AND SHOULD BE ADDRESSED.

<a href="#">2006FA0001090</a>	PIPER	LYC	MAGNETO	FAILED
11/15/2006	PA23250	IO540C4B5	6393	ENGINE

PILOT REPORTED THAT HE STARTED LT ENGINE AND THEN ATTEMPTED TO START RT ENGINE ON THE GROUND. RT ENGINE WOULD NOT FIRE. TROUBLESHOT AND TRACED PROBLEM TO LT MAGNETO OF RT ENGINE. REMOVED LT MAGNETO FROM ENGINE. UPON REMOVAL, LOOSE PARTS COULD BE HEARD INSIDE OF MAGNETO. MAGNETO WAS DISASSEMBLED. THE WEDGES HOLDING THE COIL IN PLACE WERE FOUND TO BE DISLODGED AND THE COIL HAD SHIFTED AND TAB WAS NOT MAKING CONTACT WITH DISTRIBUTOR BRUSH. MAGNETO WAS INSPECTED AND ALL OTHER PARTS WERE FOUND TO BE SERVICEABLE. A NEW COIL AND WEDGES WERE INSTALLED AND THE MAGNETO WAS REINSTALLED ON THE ENGINE AND OPERATED SATISFACTORILY. THIS MAGNETO WAS NEW AT

ENGINE INSTALLATION 630 HOURS AGO AND HAD BEEN DISASSEMBLED AND INSPECTED IAW THE 500 HOUR SLICK MAGNETO INSPECTION APPROXIMATELY 140 HOURS AGO.

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<a href="#">2006FA0001112</a>	PIPER	LYC	AXLE	CRACKED
11/26/2006	PA28161	O320D3G	7873803	LANDING GEAR

DURING A SCHEDULED 100 HOURS INSPECTION OF THE LANDING GEAR, THE MECHANIC FOUND A CRACK ON RT MAIN LANDING GEAR UPPER PART. IT IS SUSPECTED THE FATIGUE OR STRESS CORROSION CRACKING COULD BE THE CAUSE. ANOTHER REASON WHY MOST OF RT MAIN LANDING GEAR WERE FOUND CRACKED IS PROBABLY THE DIFFERENCE OF STRUCTURAL STRENGTH BETWEEN RT AND LT WING. RT WING IS SLIGHTLY STRONGER THAN LT WING BECAUSE IT HAS A (WING WALK PANEL) WHICH DOES NOT ALLOW TRANSFER ALL THE LOADS OCCURRING ON LANDINGS TO THE MAJOR MASS (ENGINE), THIS THEORY IS JUST A STRUCTURAL ANALYSIS BASE ON EXPERIENCE BUT IT NEED BE TESTED AND PROVED.

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<a href="#">2006FA0001094</a>	PIPER	LYC	SLICK	ROTOR	SHEARED
11/16/2006	PA28161	O320D3G		M3548	MAGNETO

RT MAGNETO ROTOR SHEARED DIRECTLY UNDER THE PLASTIC ROTOR GEAR.

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<a href="#">2006FA0001068</a>	PIPER	LYC	OIL COOLER	LEAKING
11/3/2006	PA28R201	IO360C1C6	20017A	

PILOT REPORTED FLICKERING OIL PRESSURE ANNUCIATOR DURING TAKE-OFF. LANDED AND FOUND OIL LEAKING FROM OIL COOLER AREA. UPON CLOSER EXAMINATION BY A&P DETERMINED COOLER WAS LEAKING IN BETWEEN THE COOLING FINS. COOLER WAS REPLACED RUN UP AND LEAK CHECKED GOOD. OIL LEVEL NEVER EXCEDED MINIMUM QUANTITY.

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<a href="#">2006FA0001072</a>	PIPER	LYC	SHAFT	FAILED
9/4/2006	PA32300	TIO540*	6271605	AILERONS

THE HOLE IN THE SHAFT WAS MISDRILLED WHERE THE TAPER PIN ATTACHES IT TO THE SPROCKET, WHICH IS PART OF THE AILERON CONTROL SYSTEM. THE MISDRILLED HOLE ALLOWED THE PIN TO BREAK FREE OF THE SHAFT. THIS FAILURE CAUSED THE SEPARATION OF THE RT CONTROL WHEEL FROM THE AIRPLANE FLIGHT CONTROL SYSTEM. THIS PROBLEM WAS FOUND WHILE CONDUCTING OTHER MAINTENANCE ON THE AIRCRAFT. THE PART IS AVAILABLE FOR INSPECTION. PHOTOS OF THE PART ARE AVAILABLE VIA E-MAIL. (K)

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<a href="#">HL01102006001</a>	SKRSKY	SKRSKY	BEARING	FAILED
10/31/2006	CH54A		SB24102	M/R GEARBOX

MAIN GEAR BOX BEGAN MAKING METAL, THIS WAS NONFERROUS METAL, UPON REMOVAL AND DISASSEMBLY IT WAS DISCOVERED THAT THE 1ST STAGE PLANETARY BEARING, P/NSB2410-2 HAD FAILED, BEARING WAS REPLACED AND RETURNED TO SERVICE. FOR FURTHER INFO SEE HEAVY LIFT WORK ORDER NR.

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<a href="#">AMCR200600004</a>	SKRSKY	PWA	QUILL	WORN
11/13/2006	S76B	PT6*	6454474	BLOWER

DURING A POSTFLIGHT INSPECTION, MECHANIC WIGGLED THE IMPELLER OF THE LT OIL COOLER BLOWER AND NOTICED EXCESSIVE PLAY AND PROCEEDED TO REMOVE THE BLOWER. INVESTIGATION REVEALED THE SPLINE SHAFT TEETH OF BOTH THE BLOWER'S QUILL SHAFT AND THE ACCESSORY DRIVE TO BE EXCESSIVELY WORN TO THE POINT THAT FAILURE WAS IMMINENT. THE SPLINE TEETH WERE DRY SO IT IS SUSPECTED THAT THE LUBRICATION WAS MISSED AT LAST INTERVAL. BUT THE REPLACEMENT OIL COOLER BLOWER, WITH AN OVERHAUL TAG, WAS FOUND TO HAVE IT'S IMPELLER INSTALLED UPSIDE DOWN. KUDO'S TO THE MECHANIC FOR THOROUGHLY CHECKING BOTH UNITS WITH UNCANNY ATTENTION TO DETAIL.

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**END OF REPORTS**